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UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

LEIGHTON TECHNOLOGIES LLC, Plaintiff and Counterclaim Defendant, vs. OBERTHUR CARD SYSTEMS, S.A., Defendant and Counterclaim Plaintiff.	04 Civ. 02496 (CM)(LMS) **DECLARATION OF RICHARD SMITH**

I, Richard Smith, affirm under penalty of perjury, as follows:

1. I am the Director of Old Manor Cottages Ltd. of Ickleford, England. I submit this declaration in support of the Defendant's Summary Judgment Motion for Invalidity. The information set forth herein is based on my personal knowledge.

2. I was a founding director of Oakwood Design ("Oakwood)" on November 1, 1977 when Glenn Dimmock and myself started Oakwood. I remained with Oakwood until approximately November 1997.

3. Oakwood was a world leader in the design and manufacture of specialist equipment for the production of PVC banking, credit and commercial cards.

4. As a director of Oakwood my principal responsibilities were design, development, and sales of Oakwood's products. From 1962 until founding Oakwood I

was in the special purpose machine design and build industry. There I acquired the knowledge and experience to design and build all forms of production machinery.

5. Glenn Dimmock and I opened an Oakwood manufacturing plant in Ickleford. We moved our manufacturing to Letchworth, England in 1985. Our first products were magnetic tape laying machines, print register guillotines and punch presses, and inspection conveyers. These machines were used in the production of laminated plastic (PVC) cards.

6. I designed my first card lamination press in late 1983. Although lamination presses already existed, these presses lacked sophisticated multi-pressure controls.

7. In late 1983 Full Identity Systems approached me on behalf of Orell Fussli, a Swiss bank note printer. Orell Fussli had contracted with the Malaysian government for the manufacture of a secure PVC driving license. They purchased HARCO laminators to make those licenses and installed them in Malaysia. These machines could not make a quality card; these machines made cards that had distorted print images.

8. I was asked if I could solve the problem. Orell Fussli sent me a HARCO machine. The HARCO machine was a single stack, single pressure, single temperature press. If a card was laminated at a lamination temperature with low pressure, the card surface exhibited "puddles", *i.e.*, surface deformations. If a card was laminated at a lamination temperature at a high pressure, the card had a satisfactory surface, but had a distorted image.

9. I recognized that the solution was a two step process. The first step was to set the machine to a low pressure while raising the temperature to the final lamination temperature, *i.e.*, the temperature at which fusion of the layers could occur. After holding the card at the fusion temperature to allow heat to penetrate all the PVC layers, we stopped applying heat and started the cooling process. When the PVC layers had cooled sufficiently, we then applied a high pressure that created the final surface finish. We found that if we applied the high pressure before the PVC had sufficiently cooled, the produced card had distorted images. We also found that to make a card with a satisfactory surface the high pressure during the cooling cycle should be between 50% and 120% greater than the pressure that was applied during the heating cycle. This two step process, a low pressure during heating and a substantially higher pressure during cooling, became standard industry practice to make plastic laminated cards by the late 1980's.

10. Using this knowledge I engineered a dual pressure, single stack machine that became the Series 6 lamination press referred to as the Series 6A laminator. The first such press was installed in approximately July 1984 in Malaysia.

11. Oakwood's Series 6 laminators were tabletop presses. The smaller Series 6 laminator used a snail cam to control the pressure. Some later larger versions of the Series 6 laminators and all the other single stack (SS series), dating from 1985, and double stack (TS series), dating from 1987, laminators controlled pressure with hydraulics. All of these laminators had both a heating cycle and a cooling cycle and the magnitude of pressure during the cooling cycle was between 50% and 120% greater than the pressure that was applied during the heating cycle.

12. Oakwood sold before 1994 at least 500 of the Series 6 laminators, including many to the United States, that were used by our customers to laminate PVC cards, both commercially and for testing. Indeed, we were using this machine to laminate plastic (PVC) access cards with embedded elements.

13. We provided to each of these customers a copy of a Series 6 instruction manual without imposing any confidentiality restrictions. I attach a copy of this instruction manual that I was able to locate in my records as Exhibit A. We also freely supplied our Series 6 instruction manual to anyone who may have asked for a copy. The annexed instruction manual is dated October 1991 as indicated on its front page; however to the best of my recollection earlier manuals were substantially identical with regard to the instructions on how to operate the laminator and examples of lamination cycles.

14. Oaysis Technologies Ltd, who purchased many of Oakwood's assets in approximately 1998, still manufactures a successor version of the Series 6 laminators.

15. Before delivering a laminator to a customer, we would run tests at Oakwood on material that the customer supplied. We would optimize the cycle for the particular materials. But in all cases the snail cam Series 6 laminator was setup to apply two pressures during the lamination cycle: a low pressure while the materials were heated and a high pressure, approximately between 50% and 120% greater than the pressure during heating, while the materials were cooled.

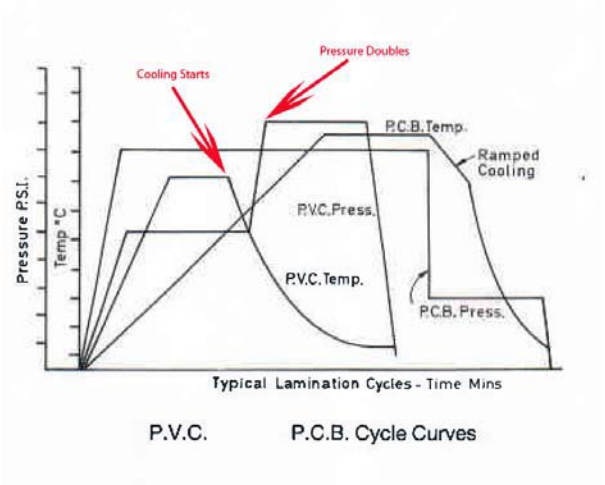
16. The Series 6 laminators are illustrated and described in an Oakwood brochure that was published in 1987-88. I attach a copy of this marketing brochure as Exhibit B. I can date the brochure because it bears the seal of the Queens Award of 1987 on its front page. The Queens Award is provided by the Queens Award Office located at

151 Buckingham Palace Rd, London SW1W 9SS. The Queen's Awards for Enterprise are the United Kingdom's most prestigious awards for business performance. It recognizes and rewards outstanding achievement by United Kingdom companies. The Awards are made each year by The Queen, on the advice of the Prime Minister, who is assisted by an Advisory Committee that includes representatives of Government, industry and commerce, and the trade unions. The Queens Award was announced approximately in April 1987 and awarded in September 1987. Since the award was made in late 1987, the brochure was published either in late 1987 or 1988.

17. I also know that it was published prior to 1992 because Oakwood's telephone number bears the obsolete area code, which were abandoned around 1992-93. Indeed, another brochure, which bears the 1992 Queens Award (Exhibit C) and which was published in late 1992 to early 1993, bears the more modern area code.

18. The 1987 marketing brochure was freely distributed at exhibitions and to then current and prospective customers. For example, we exhibited and passed out this brochure (and the 1992 Queens Award marketing brochure) at trade shows organized by International Card Manufacturers Association ("ICMA") in Europe and in the United States before 1994. We also passed out the brochure at the Smart Card Applications and Technologies and Advanced Security and Identification Technology Conference and Combined Exposition in Washington, DC for Techworld from May 29 to June 1, 1990. Another exhibition at which we distributed this brochure was the ICMA meeting at the Holiday Inn in Newark, New Jersey before 1994.

19. We provide in the 1987 marketing brochure a pressure and temperature versus time graph for plastic (PVC) laminated cards. That graph with added annotations in red is shown in the right margin. The graph clearly shows a pressure ("P.V.C. Press") during the cooling cycle ("P.V.C. Temp") that is approximately twice the pressure during the heating cycle.



20. The 1987 (and 1992) Oakwood brochures describe and illustrate the Series 6 laminator and state that an additional brochure is available for the Series 6 laminator -- the Oakwood Series 6 Laminators sales brochure attached as Exhibit D.

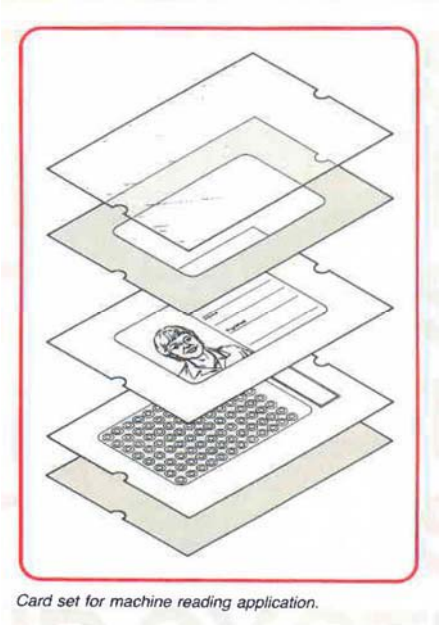
21. As early as 1984 we were using the Series 6 laminator to manufacture plastic (PVC) access cards with embedded elements. Full Identity Systems introduced Oakwood to Borer Systems Ltd. ("Borer") to supply Borer with Series 6 laminators for manufacturing these access cards. We tested the Series 6 laminator to insure that it could successfully produce a laminated Borer access card. We installed our Series 6 laminator at the UK Atomic Energy Authority ("UKAEA") in approximately 1984 or 1985. We also sold presses to British Nuclear Fuel long before 1994. The UKAEA and British Nuclear Fuel used those presses to manufacture Borer access cards.

22. An illustrative schematic of the Borer card is shown in the Oakwood Series 6 Laminators sales brochure on page 3. It served as an example of the type of card that the Series 6 laminator could produce. This brochure was first published in 1987-88.

As with the 1987 marketing brochure, the Oakwood Series 6 Laminators sales brochure bears the 1987 Queens Award to Oakwood. It also bears the obsolete area code, which was abandoned around 1992-93.

23. Indeed, the Series 6 instruction manual states in its introduction that identity cards including "machine readable inserts such as copper, ferrite, aluminum disc and wire resistance code sheets" can be laminated with the Series 6 laminator. Exhibit A, p. 1. There was no need to protect these coils from the press pressure; the plastic films directly contacted these elements.

24. The card set as shown in the Oakwood Series 6 Laminators sales brochure comprises 5 plastic layers: a top transparent plastic layer, a first opaque plastic layer having a cutout, a second opaque plastic layer upon which an actual photograph sits, a third opaque plastic layer having an inserted plastic substrate carrying inductive codings (coils) , and a bottom opaque plastic layer.



Card set for machine reading application.

25. In order to create a flat surface across the card the first opaque layer has a thickness approximately the same as the thickness of the photograph and together they effectively form one layer. In order to minimize voids that the soft plastic must fill during the lamination process the third opaque plastic layer surrounding the substrate has a thickness somewhere between the thickness of the substrate and the thickness of the substract plus

the thickness of the coils. Accordingly, the top of the coils extend slightly above the top level of the third opaque plastic layer surrounding the substrate.

26. In sum, when assembled and laminated, the card is substantially flat across its surface.

27. We sold our laminators to Borer's customers, *e.g.*, UKAEA and British Nuclear Fuel, who purchased the Borer insert from Borer and then assembled and laminated the Borer cards on their own premises. Neither the lamination cycle nor the structure of the Borer card were confidential. Indeed, as described above we freely published both the lamination cycle and the Borer card structure.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Executed on October 14th, 2005.

Richard Smith